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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/065,505   | 10/25/2002  | Gary Steven Strumolo | 202-0206 FAM        | 2126             |
| 28549  | 7590        | 06/29/2004           | EXAMINER            |                  |
| KEVIN G. MIERZWA<br>ARTZ & ARTZ, P.C.<br>28333 TELEGRAPH ROAD, SUITE 250<br>SOUTHFIELD, MI 48034 |             |                      | NGUYEN, THU V       |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 3661                |                  |

DATE MAILED: 06/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/065,505

Applicant(s)

STRUMOLO ET AL.

Examiner

Thu Nguyen

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The amendment filed on April 7, 2004 has been entered. By this amendment, all claims 1-17 are pending in the application.

#### ***Specification***

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). The specification does not provide proper support or disclosure of the detail disclosed in claims 6, 11, 15.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 7-10, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuman et al (US 2003/0065432) in view of Tsutsumi et al (US 5,617,085).

As per claim 1-2, 7-9, Shuman teaches a crash assessment and safety activation system comprising: a first remote sensor 202(7) (fig.4) and a first visual sensor 202(5) (fig.4) (para 0064), a first safety device actuator to activate a first safety device, a controller 210, 230 (fig.2) for controlling a first safety device in response to the result concluded from the first remote and visual sensor (para 0069; 0086; 0154; 0166). Shuman does not explicitly suggest letting the

visual sensor sense at least a portion of the region sensed by the remote sensor, generating confirmation signal, however, since Shuman teaches providing images and distance of the objects sense by the remote sensor (para 0154), Shuman obviously teaches that the visual sensor senses at least a portion of region sensed by the remote sensor. Moreover, Shuman teaches using both data from the remote and visual sensor for confirming the existence as well as position and size of objects to determine activation of safety devices (para 0086, 0154), further, Tsutsumi teaches confirming the target object using both first object signal and visual signal (col.13, lines 40-64; col.14, lines 3-7, lines 61-67; col.13, lines 15-67; col.16, lines 1-24). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize both the first and visual signal of Shuman to confirm the existence of an object as taught by Tsutsumi in order to enhance speed and accuracy in determining activating safety devices.

As per claim 3-4, Shuman teaches including a second remote sensor 202(15) (fig.4). Further, with respect to claim 4, angling the sensors at different angles would have been both known and obvious for detecting objects at desired angle.

As per claim 5, since Shuman teaches dynamically determining the size and type of the objects on the street along the road the vehicle is passing by (para 0086), Shuman obviously encompasses teaching determining if the object is a vehicle. Moreover, since Shuman teaches continuously monitoring the objects surrounding the vehicle by gathering data detected from the visual and several remote sensors (para 0085) Shuman obviously encompasses teaching polling

of the sensors for continuing monitoring the surrounding environment with objects in the field of view of the sensors.

As per claim 10, 13, refer to claims 5, 8 above.

4. Claims 6, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuman et al (US 2003/0065432) in view of Tsutsumi et al (US 5,617,085) and further in view of Winner et al (US 6,580,385).

As per claim 6, 11 Winner teaches a well known remote sensor capable of sensing a region of 3m (col.3, lines 5-10). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the well known sensor shown by Winner to the system of Shuman in order to provide short range detecting of object.

5. Claims 12, 14, 16, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuman et al (US 2003/0065432) in view of Tsutsumi et al (US 5,617,085) and further in view of Sato et al (US 3,778,823).

As per claim 12, Sato teaches determining whether a potential for collision is within a safety device activation threshold (col.6, lines 23-30; col.7, lines 1-13; col.10, lines 32-61). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to establish a device activation threshold for activating the safety device in the system of

Shuman as taught by Sato in order to facilitate determining of possibility of crash and activating safety devices accordingly.

As per claim 14, 16, refer to claims 1, 5, 12 above.

As per claim 17, Shuman teaches classifying the target object (para 0086-0087; 0154), further using bounding box, etc to estimate the size of the objects from the picture received from a camera sensor would have been well known.

6. Claims 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuman et al (US 2003/0065432) in view of Tsutsumi et al (US 5,617,085) further in view of Sato et al (US 3,778,823) and Winner et al (US 6,580,385).

As per claim 15, refer to claim 6 above.

### ***Response to Arguments***

7. Applicant's arguments have been considered but are moot in view of the new grounds of rejection.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 305-7687, (for formal communications intended for entry)

**Or:**

(703) 305-7687 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park V, 2451  
Crystal Drive, Arlington, VA., Seventh Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to Thu Nguyen whose telephone number is (703) 306-9130. The  
examiner can normally be reached on Monday-Thursday from 8:00 am to 6:00 pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Thomas Black, can be reached on (703) 305-8233. The fax phone number for this  
Group is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the Group receptionist whose telephone number is (703) 308-1111.



**THU V. NGUYEN  
PRIMARY EXAMINER**

June 18, 2004